# AUTHOR INDEX


Anderson, O. R.: The Effects of Varying Structure in Science Content on the Acquisition of Science Knowledge, 361

Atkin, J. M.: Research Styles in Science Education, 338

Atwood, R. K.: A Cognitive Preference Examination Using Chemistry Content, 34

CHEM Study Achievement Among Groups Classified by Cognitive Preference Scores, 154

Berkheimer, G. D.: The Science Supervisor and the Utilization of Curriculum Materials, 20

Bingman, R. M.: Aptitude and Interest Profiles of Biology Participants in Montgomery County (Pennsylvania) Science Fairs, 245

Bledsoe, J. C.: *see* Carnes, P. E.
*see* Handley, H. M.

Blankenship, J. W., and Hoy, W. K.: An Analysis of the Relationship Between Open- and Closed-Mindedness and Capacity for Independent Thought and Action, 69

Boener, C. M.: Evaluation of the Grade Placement of Science Concepts in the Early Elementary Grades, 253

Brown, J. H.: A Concept Prerequisite and Development Test for the First Grade, 30

Brown, W. A.: Improvement of Testing and Course Evaluation, 240

Buell, R. R.: *see* Thomas, P. G.

Butts, D. P.: *see* Raun, C. E.

Carey, R. L.: *see* Pella, M. O.

Carnes, P. E., Bledsoe, J. C., and VanDeventer, W. C.: Programmed Materials in Seventh-Grade Open-Ended Laboratory Experiences, 385

Cohan, P. H.: Determining the Status of Science Education Programs for a Regional Center, 160

Collette, A. T.: *see* Zingaro, J. S.

Eccles, P. J.: Teaching Behavior and Lesson Effectiveness for a Specific Science Objective, 397

Engen, H. B., Smith, D. D., and Yager, R. E.: Student Outcomes with Rotation of Teachers in Secondary Biology, 230

Fischler, A. S., and Zimmer, G.: The Development of an Observational Instrument for Science Teaching, 127

Geer, I. W.: A Follow-up Study of the Effects of Service as Mesoscale Weather Network Observers, 350

Geis, F., Jr.: Commentary on: *"Science as Mind-Affected and Mind-Effecting Inquiry,"* by Casteel and Yager, 295

Handley, H. M., and Bledsoe, J. C.: The Personality Profiles of Influential Science Teachers, Regular Science Teachers, and Science Research Students, 95

Henkel, E. T.: Undergraduate Physics Instruction and Critical Thinking Ability, 89

Hoy, W. K.: *see* Blankenship, J. W.

Jacobson, W. J.: Teacher Education and Elementary School Science—1980, 73

Johnson, P.: *see* Williamson, H.

Johnsten, T. D.: Achievement in General College Biology as Related to High School Background in Science and Mathematics, 243

Kane, R. B.: The Readability of Mathematical English, 296

Kimball, M. E.: Understanding the Nature of Science: A Comparison of Scientists and Science Teachers, 110

Kolb, J. R.: Effects of Relating Mathematics to Science Instruction on the Acquisition of Quantitative Science Behaviors, 174

La Shier, W. S., Jr.: *see* Schmedemann, G.

Lepper, R. E.: A Cross-Cultural Investigation of the Development of Selected Piagetian Science Concepts, Social Status, and Reading Readiness, 324

Martin, B. L.: Spatial Visualization Abilities of Prospective Mathematics Teachers, 11

Matthews, C. C.: Classroom Verbal Behavior of Science Student Teachers and Their Cooperating Teachers, 193

Mayer, V. J.: Science Requirements in Earth Science Teacher Preparation Programs, 276

Montague, E. J., and Ward, R. M.: The Development of Problem Solving Abilities in Secondary School Chemistry, 354

O'Hearn, G. T.: *see* Wood, R. L.

Orlich, D. C., and Seeling, R. H.: Science Preparation of Idaho Biology Teachers Compared with AAAS Cooperative Committee Recommendations, 32

Parakh, J. S.: A Study of Teacher–Pupil Interaction in High School Biology Classes. Part II. Description and Analysis, 183

Perkes, V. A.: Junior High School Science Teacher Preparation, Teaching Behavior, and Student Achievement, 121

Pella, M. O., and Carey, R. L.: Levels of Maturity and Levels of Understanding for Selected Concepts of the Particle Nature of Matter, 202

and Stauss, N. G.: The Relationship Between

Concept Attainment and Level of Maturity, 299
and Voelker, A. M.: Teaching the Concepts of Physical and Chemical Change to Elementary School Children, 311
and Ziegler, R. E.: Use of Mechanical Models in Teaching Theoretical Concepts, 138
*see* Welch, W. W.
*see* Wood, R. L.
Raun, C. E., and Butts, D. P.: The Relationship between the Strategies of Inquiry in Science and Student Cognitive and Affective Behavioral Change, 261
Raven, R. J.: The Development of the Concept of Momentum in Primary School Children, 216
The Development of Classification Abilities in Culturally Disadvantaged Children, 224
Rothman, A. I.: Responses to Science Concepts on a Semantic Differential Instrument and Achievement in Freshman Physics and Chemistry, 168
Rutledge, J. A.: Preparing Secondary School Teachers for 1980, 3
Sadler, P. M.: Teacher Personality Characteristics and Attitudes Concerning PSSC Physics, 28
Schmedemann, G., and La Shier, W. S., Jr.: Cognitive Preferences of Students and Selected Characteristics of Their PSSC Teachers, 40
Schmidt, D. J.: A Test on Understanding Science: A Comparison Among Several Groups, 365
Seeling, R. H.: *see* Orlich, D. C.
Skinner, R., Jr.: Inquiry Sessions: An Assist for Teaching Science via Instructional Television in the Elementary School, 346
Smith, D. D.: *see* Engen, H. B.
Stauss, N. G.: *see* Pella, M. O.
Thomas, P. G., and Buell, R. R.: Piagetian Studies in Science: Perception and Rendering of Form by Children, 36
Trinklein, L. A.: Comparative Effectiveness of Showing Excerpts and Full Length Film in Chemistry, 235
Troost, C. J.: Teaching of Evolution in the Secondary Schools of Indiana, 37
Tyler, R. W.: Resources, Models, and Theory in the Improvement of Research in Science Education, 43
Analysis of Strengths and Weaknesses in Current Research in Science Education, 52
Uhlhorn, K. W.: The Preparation, Use, and Application of a Science Experience Inventory, 282
Pre-Student Teaching Experiences in Science, 367
VanDeventer, W. C.: An Inquiry Approach to Interdisciplinary Seventh Grade Science, 373
*see* Carnes, P. E.
Voelker, A. M.: *see* Pella, M. O.
Walberg, H. J., and Welch, W. W.: Dimensions of Personality in Selected Physics Teachers, 357
*see* Welch, W. W.
Ward, R. M.: *see* Montague, E. J.
Welch, W. W., and Pella, M. O.: The Development of an Instrument for Inventorying Knowledge of the Processes of Science, 64
and Walberg, H. J.: An Evaluation of Summer Institute Programs for Science Teachers, 105
*see* Walberg, H. J.
Welliver, P. W.: Television Instruction and the Attainment of Objectives for a Ninth Grade Physical Science Course, 81
Williamson, H., and Johnson, P.: Chemical Research and the Small College, 238
Wood, R. L., Pella, M. O., and O'Hearn, G. T.: Scientifically and/or Technologically Oriented Articles in Selected Newspapers, 151
Yager, R. E.: *see* Engen, H. B.
Ziegler, R. E.: *see* Pella, M. O.
Zimmer, G.: *see* Fischler, A. S.
Zingaro, J. S., and Collette, A. T.: A Statistical Comparison between Inductive and Traditional Laboratories in College Physical Science, 269